



**Board of Review
Management Report and Action Plan**

**Commercially Guided Bicycle Tours
NPS Safety Analysis Report
Haleakala National Park**

Recommended: Patricia L. Neubacher Date: 2/22/08
Patricia L. Neubacher
Deputy Regional Director, Pacific West Region
Board of Review Chair

Approved: Jonathan B. Jarvis Date: 3/10/2008
Jonathan B. Jarvis
Regional Director, Pacific West Region

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NATIONAL PARK SERVICE

UNITED STATES DEPARTMENT OF THE INTERIOR



Board of Review Members

Patricia L. Neubacher, Deputy Regional Director/Chief of Staff
Pacific West Region, National Park Service
Board of Review Chair

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Pacific West Region, National Park Service
Safety Analysis Team Lead

Scott Wanek, Chief Ranger
Pacific West Region, National Park Service
Safety Analysis Team, Lead Investigator

Anne Dubinsky Altman, Chief of Concessions
Pacific West Region, National Park Service

Marilyn Parris, Superintendent
Haleakala National Park

C. Mahina Martin, Community Relations & Communications Director
Maui County, Office of the Mayor (ex officio)

Background & Findings



The Board of Review for the *NPS Safety Analysis Report: Commercially Guided Bicycle Tours, Haleakala National Park* convened on February 4-5, 2008, in the Pacific West Regional Office in Oakland, California.

The Board reviewed the report from the Safety Analysis Team and developed recommendations and an action plan to address the future management of commercial bicycle tours at Haleakala National Park.

BACKGROUND

On September 26, 2007, a bicyclist on a commercial bicycle tour lost control of her bicycle on the downhill run from the crater parking area and was struck and killed by a vehicle operated by another commercial bicycle tour. This was the second fatality of a commercial bicycle tour client in the park within a 12-month period. Three other serious injuries occurred within this same 12-month period, one a near fatality.

The National Park Service places a high priority on public injury prevention. While the National Park Service does not guarantee visitor safety nor is it responsible for acts and decisions made by visitors that may result in injury or illness, it does have a responsibility to identify public safety hazards and risks, and to determine how, and to what extent, these risks can be mitigated.

In keeping with that responsibility and consistent with applicable legal authorities, Superintendent Marilyn Parris ordered an emergency safety stand down of all commercially guided bicycle tours following this recent fatality, and requested that Regional Director Jonathan B. Jarvis appoint a team to conduct a safety analysis of these tours.

On December 10, 2007, a Safety Analysis Team convened at the park to conduct a risk-based assessment of this activity. The team interviewed park staff, bicycle tour company personnel, bicycle tour clients, and local hospital and EMS workers. The team reviewed historical information including tour company permits, accident reports, and safety information provided by the commercial bicycle tour companies. The team also reviewed a 1999 NPS root cause analysis, a 2007 Department of Transportation safety report on this activity at the park, and other information provided by the park. Finally, the team compared this commercial activity to a number of potentially high-risk commercial activities on other public lands to provide context. Based on this information, the Safety Analysis Team conducted a risk assessment of the activity.

The Safety Analysis Team concluded that commercial bicycle tours at Haleakala National Park, as operated and managed prior to the safety stand-down and as measured by the “Green-Amber-Red” risk model process, posed moderately high risks to the tour participants. In evaluating the risk categories, the team identified a range of operational and managerial actions that the team believed could reduce the risk of this activity. The Board of Review evaluated the Safety Analysis Team’s draft report and came to the following findings:

BOARD OF REVIEW FINDINGS

- 1. Commercially guided bicycle tours at Haleakala National Park, as operated and managed prior to the safety stand-down, pose an unacceptably high risk to park visitors.** Although the accident rate for this activity decreased significantly between 2000 and 2001, when the park mandated additional controls for the activity, and has remained stable ever since, commercially guided bicycle operations consistently result in 60 participant injuries within the park annually. This number of injuries exceeds injury rates in other comparable commercially guided recreational activities.
- 2. Additional management and operational changes to this activity may mitigate this risk to an acceptable level.** Management controls instituted in 2001 following the NPS Root Cause Analysis in 1999 appear to correlate directly to a significant decline in accident rates that has been sustained, even as the numbers of tour participants have increased. Additional controls instituted in 2005 reduced the number of tours, which reduced participant numbers from a high of 105,000 to a steady 90,000 participants annually. Finally, different bicycle companies have different accident rates, indicating that specific management practices influence the safety of the activity. The Board directed that a number of bicycle tour operational changes (see below under “Minimum Operating Conditions”) be further developed by Haleakala National Park staff with the assistance of regional concessions staff for consideration by the superintendent and regional director. These operational changes would be designed to reduce participant risk in each of the risk categories identified by the safety analysis team.

Actions



1. **Final Safety Analysis Report:** The Board reviewed the Safety Analysis Team's draft report in depth and concurred with the team's findings. The Board requested that a number of clarifications and technical corrections be incorporated into the final report. The team will incorporate the Board's comments into the draft report, add data where requested, and provide a final report to the Board no later than February 28, 2008.
2. **Commercial Services Plan:** The Board concurred that the long term future of commercial bicycle operations would be evaluated in the ongoing Commercial Services Plan process for Haleakala National Park. The Commercial Services Plan process is underway, includes public participation, and is estimated to be complete in 2009.
3. **Minimum Operating Conditions:** The Board directed the park and regional concessions staff to develop a specific set of operating conditions identified in the Safety Analysis Report for commercial bicycle tours that could result in a safer tour at Haleakala National Park. The park and regional team will develop these specific conditions over the next month. It was noted that some of these proposed standards may require additional NPS oversight, so would require cost recovery from the permittees. Next steps in this process are as follows:
 - **Minimum Standards Proposal:** Based on the risk assessment model, the Board identified a series of specific factors that would constitute the minimum standards for a safer commercial bicycle operation, and identified for each the responsible party (NPS or Company). Those that are identified as an NPS responsibility refer to Haleakala National Park staff as the lead with regional concessions staff assisting, and will be developed into a proposed operating model by March 10, 2008.

Those identified as a company responsibility would be posed to the bicycle companies to develop operational procedures that meet these minimum standards.

1. Evaluate total group size and guide/client ratio, develop standard that limits group size and increases the guide to client ratio to improve supervision and communications. (NPS)

2. Evaluate the number of trips per day. Prior to the safety stand-down there were 40 trips/day, 19 of which were at sunrise (the 2005 Interim Operations Plan has already reduced the number of sunrise trips from 36 to 19). Evaluate the spread of trips throughout the day, particularly the number at sunrise, to reduce congestion and slow the pace of the trips. (NPS)
3. Establish a standard that all guides leading trips must have ready access to a supervisor. Each company would propose the method, whether on site supervision or some other form of supervisory oversight.
4. Establish a minimum standard for go/no go decision, which should be made by individual companies at an appropriate supervisory level (above the guide level). Each company would propose how they will make the go/no go decision for both individual participants in the trip, and for the trip itself based on weather or other factors. NPS would develop a checklist for evaluating weather conditions, set thresholds for wind speed/temperature, and consider tools that would assist in this decision, such as visible wind sock/temperature gage at the crater parking area.
5. Establish permit condition prohibiting third party bookings. This provides the opportunity for clients to get accurate, consistent information directly from the companies about the trip, and determine if the trip is a good fit for their abilities. (NPS)
6. Require companies to develop and the NPS to approve material provided to clients; the NPS would set minimum standards for content; this may include a self screening questionnaire to assist both clients and companies in identifying client suitability for the activity.
7. Require companies to establish and the NPS to review minimum training standards for guides. Each company would propose safety training material to the NPS for review.
8. Require companies to have transportation available with a pre-determined response time to transport clients with minor injuries. This would reduce transport pressure for minor injuries for Maui Emergency Medical Services, and lessen the burden on health care system. Each company would propose how this would work.

9. Improve communication between guides and clients. At a minimum, brake lights would be required on all bikes; companies may consider wireless headsets, or other means to improve communications during the ride. Each company would propose methods to improve communication.
10. Improve test ride as one of the client screening elements, and require that the test ride, equipment check, and equipment fitting occur before the clients arrive at the park. Each company would propose how to accomplish this.
11. Require companies to establish a reasonable refund policy (minimum 50%) for clients who opt out at the summit, reducing the pressure for clients to proceed with the ride even if they feel unprepared/unsuited to initiate or complete the ride. Each company would propose how this would work and would be required to provide refund policy information in the pre-trip packet; NPS would approve refund policy.
12. NPS would paint the curbs to improve visibility. Park will evaluate costs and if this is in the park's cyclic maintenance plan. (NPS)
13. NPS will evaluate holding bicycle launches at the summit until the sunrise surge has cleared out to reduce vehicle/bike interactions during a period of high congestion. NPS will determine launch intervals affiliated with this, and each company would propose how to ensure visitor comfort during this holding period.
14. NPS will evaluate existing information provided to all visitors related to bicycles on the road, and will assess if this information can be improved to increase awareness among all visitors about the presence of bicycles and the rules of the road.
15. Require bicycles to stop at every pullout between the summit and park headquarters to reduce the pace of the trip, provide park information, and check in on how each client is doing. The trips would stop at the following areas, at a minimum: Kalahaku, Leleiwi (park will determine if restroom area or parking area), and park headquarters. Interpretive information provided by company at these stops would be approved by the park. Park will confirm that these are the only pullouts available.